CHAPTER 5
Alternatives to the Program

The California Environmental Quality Act (CEQA) requires an evaluation of the comparative effects of a range of reasonable alternatives to a project[1] that would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project (CEQA *Guidelines*, § 15126.6(a)). The environmental impact report (EIR) must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation. The nature and scope of the alternatives to be discussed is governed by the "rule of reason" (CEQA *Guidelines*, § 15126.6(f)). A discussion of alternatives should include alternatives to the project or its location that are capable of avoiding or substantially lessening any of the project's significant effects, even if these alternatives would impede, to some degree, the attainment of the project objectives, or would be more costly (CEQA *Guidelines*, § 15126.6(b)).

The EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination (CEQA *Guidelines*, § 15126.6(c)). The EIR should include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the project (CEQA *Guidelines*, § 15126.6(d)). Evaluation of a "no project" alternative is required to allow decision-makers to compare the impacts of approving the project with the impacts of not approving the project. The "no project" alternative analysis should discuss existing conditions at the time the environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved (CEQA *Guidelines*, § 15126.6(e)).

In accordance with the above, the range of potential alternatives to the Scott River Watershed-wide Permitting Program (Program) discussed in this Chapter include those that could feasibly accomplish most of the basic objectives of the Program but could avoid or substantially lessen one or more of the Program's significant adverse effects on the environment. Specifically, the Draft EIR considers two alternatives. Those alternatives and the specific reasons for selecting them are:

Alternative	**Reasons for Selection**
1. No Program Alternative	Consideration of this alternative is mandatory.
2. Instream Flow Alternative	This alternative provides an analysis of another approach that would include the Program plus some additional measures to reduce potential impacts to coho salmon (*Oncorhynchus kisutch*) through development of surface water storage reservoirs.

[1] For purposes of this Draft EIR, the Scott Watershed-wide Permitting Program ("Program") is the project being analyzed pursuant to CEQA.

Each of the alternatives, its potential environmental impacts, and its ability to meet basic Program objectives as compared with the Program is described below. As part of the evaluation and comparison of alternatives, the CEQA *Guidelines* require that if the "no project" alternative is identified as the environmentally superior alternative, the EIR must also identify the environmentally superior alternative among the other alternatives (CEQA *Guidelines*, § 15126.6(e)(2). A lead agency is not compelled to adopt the environmentally superior alternative. However, if a lead agency rejects an alternative that would substantially reduce the environmental impacts of the project under consideration, the lead agency must, when certifying the EIR, make findings that describe the specific reasons for rejecting the alternative. Reasons may include specific economic, legal, social, technological, or other considerations that make the alternative infeasible (CEQA *Guidelines*, § 15091(a)(3)).

5.1 Alternatives Considered but Rejected

In addition to the two alternatives selected for this analysis, the California Department of Fish and Game (CDFG) considered five other possible alternatives. Upon consideration, however, these alternatives were rejected for one of three reasons: the alternative failed to meet most of the basic Program objectives; the alternative was found to be infeasible; or the alternative did not have the ability to avoid or substantially lessen one or more of the Program's significant adverse effects on the environment. The rejected alternatives are discussed briefly, along with the specific reasons they were rejected.

5.1.1 Rejected Alternative 1: Consistency Determination

California Fish and Game Code (Fish and Game Code), § 2080.1[2] provides that no further state authorization or approval is needed for the incidental take of a species listed as endangered or threatened under both the California Endangered Species Act (CESA) and the federal Endangered Species Act (ESA) if a person has obtained an Incidental Take Permit (pursuant to ESA section 10) or Incidental Take Statement (pursuant to ESA section 7) from the Secretary of the Interior or the Secretary of Commerce, and the Director of CDFG determines that the conditions

[2] In part, Fish and Game Code, § 2080.1 reads as follows:

"(a) ...[I]f any person obtains from the Secretary of the Interior or the Secretary of Commerce an incidental take statement pursuant to Section 1536 of Title 16 of the United States Code or an incidental take permit pursuant to Section 1539 of Title 16 of the United States Code that authorizes the taking of an endangered species or a threatened species that is listed pursuant to Section 1533 of Title 16 of the United States Code and that is an endangered species, threatened species, or a candidate species pursuant to this chapter, no further authorization or approval is necessary under this chapter for that person to take that endangered species, threatened species, or candidate species identified in, and in accordance with, the incidental take statement or incidental take permit, if that person does both of the following:

(1) Notifies the director in writing that the person has received an incidental take statement or an incidental take permit issued pursuant to the Endangered Species Act of 1973 (16 U.S.C.A. section, 1531 *et seq*.).

(2) Includes in the notice to the director a copy of the incidental take statement or incidental take permit.

(c) Within 30 days after the director has received the notice described in subdivision (a) that an incidental take statement or an incidental take permit has been issued pursuant to the Endangered Species Act of 1973, the director shall determine whether the incidental take statement or incidental take permit is consistent with this chapter. If the director determines within that 30-day period, based upon substantial evidence, that the incidental take statement "or incidental take permit is not consistent with this chapter, then the taking of that species may only be authorized pursuant to this chapter."

of the federal take authorization are consistent with Fish and Game Code, § 2081(b) and (c), including the requirement to fully mitigate the authorized take. If the Director makes such a determination, CDFG would issue a "consistency determination," rather than an incidental take permit (ITP). Under this alternative, CDFG would not issue an ITP and sub-permits under the Program authorizing the incidental for take of coho salmon, but instead, upon written request from each individual project proponent, would review any take authorization issued by the National Marine Fisheries Service (NMFS) for coho salmon that applies to the same project for consistency with CESA. Streambed alteration agreements (SAAs) would still be required for water diversions and other Covered Activities.

CDFG frequently issues consistency determinations for projects that involve incidental take of species dually-listed under CESA and ESA. However, in those instances, a federal permit (e.g., a CWA section 404 permit from the U.S. Army Corps of Engineers) has been issued for the project. In those cases, if the project could result in take of a listed species, the federal agency issuing the permit will have obtained from NMFS or the U.S. Fish and Wildlife Service (USFWS) incidental take authorization in the form of an Incidental Take Statement which NMFS or USFWS will include in its biological opinion. Coho salmon in the Program Area are listed under both CESA and ESA, but in order for the Siskiyou Resource Conservation District (SQRCD) and Agricultural Operators to obtain a consistency determination from CDFG, they would need to first obtain a federal permit for the Covered Activity they want to complete, and the federal agency issuing the permit would need to consult with NMFS and obtain incidental take authorization for the activity the permit covers in accordance with ESA section 7. This assumes, of course, that the Covered Activity would require a federal permit in the first place. If a federal permit were not required and SQRCD and Agricultural Operators wanted to obtain a consistency determination from CDFG, they would need to separately apply for an incidental take permit under ESA section 10 by submitting a Habitat Conservation Plan, obtain the permit, and then seek a consistency determination. Both processes to obtain incidental take authorization under ESA, and thereafter a consistency determination from CDFG would be costly, would take a long time to complete (years in the case of the ESA section 10 process), and would not apply to all Agricultural Operators.

As a result, under this alternative, take authorization under CESA for the activities covered by the Program would be substantially delayed. That delay, in turn, would impede implementation of coho salmon recovery tasks and CESA compliance by Agricultural Operators, among other objectives of the Program. In the meantime, many if not all of the ongoing, historic activities the Program covers would continue along with any impacts they might have on coho salmon. Also, as mentioned above, SAAs would still be required for water diversions and other Covered Activities under this alternative. However, because CDFG may elect not to issue SAAs for projects that are not in compliance with CESA or other provisions in the Fish and Game Code under Fish and Game Code, § 1613, and each SAA issued under the Program will include the general condition that the SAA holder is responsible for complying with all applicable state laws to conduct the activity or activities the SAA covers, under this alternative, obtaining a consistency determination would in effect be a pre-requisite to obtaining a SAA or beginning the activity or activities to which the SAA applies. Such an outcome would only serve to maintain the status quo

in the Program Area for a longer period of time, thereby defeating most, if not all of the Program's basic objectives. For the foregoing reasons, this alternative is not considered feasible, and therefore is rejected from further consideration.

5.1.2 Rejected Alternative 2: Adjudication of Water Rights

Statutory adjudication is a process by which the comprehensive determination of all water rights in a stream system is made by the State Water Resources Control Board (SWRCB). The process begins when a claimant petitions SWRCB for an adjudication and the SWRCB finds the action necessary and in the public interest. The California Supreme Court has held that claimants or petitioners may include not only water users, but also those seeking recognition of public trust values on a stream-wide basis. If SWRCB grants the petition, SWRCB staff would investigate the matter and issue a report which would include a draft Order of Determination. A hearing would then be held on objections to the draft report, after which SWRCB would adopt a final Order of Determination and file it with the appropriate superior court. Any objections to SWRCB's final order would be heard by the court, after which the court would render a decision. The final step in the process is a decree by the court that determines all water rights within the disputed system (SWRCB, 2007). Typically, this process takes 10 to 20 years to complete.

Water rights in the Program Area are appropriated under the Shackleford Creek Decree (1950), French Creek Decree (1958), and the Scott River Decree (1980). Under this alternative, the water rights the decrees cover would be re-adjudicated to protect public trust values, particularly the salmonid fishery in the Scott River and its tributaries primarily by reducing the volume and restricting the timing of surface water diversions, as well as interconnected groundwater withdrawals. While this alternative could be effective in avoiding or lessening some of the Program's significant impacts, it would not meet the Program's basic objectives to implement selected key coho salmon recovery tasks (other than increasing streamflow), and to facilitate compliance by SQRCD, Agricultural Operators, and California Department of Water Resources (DWR) with Fish and Game Code, § 1600 *et seq.* and/or CESA, which the Program would accomplish in part by establishing a watershed-wide set of terms, conditions, and mitigation measures for ongoing agricultural operations to ensure that take of coho salmon is avoided, minimized, and mitigated. In order to implement this alternative, there must be at least one willing party affected by the decree to petition the court or SWRCB in the first place, but no party has been identified at this time. As mentioned above, re-opening the decree would be a very time-consuming and expensive alternative that given the multitude of interested parties would be very controversial and uncertain in its outcome. Any expense would substantially increase if SWRCB conducted the re-adjudication, and in doing so were required to comply with CEQA. Finally, it is not certain that any re-adjudication would go far enough to adequately protect public trust resources. For the foregoing reasons, this alternative is rejected from further consideration.

5.1.3 Rejected Alternative 3: Hatcheries

This alternative would involve operating one or more hatcheries on the Scott River to augment or replace natural reproduction of coho salmon. Rather than taking measures to ensure that natural coho salmon spawning and rearing habitat are protected and enhanced, this alternative would

substitute natural reproduction and rearing with hatchery reproduction and rearing. The alternative is rejected because it does not meet two basic objectives of the Program: the implementation of selected key coho salmon recovery tasks and compliance with CESA and Fish and Game Code, § 1602 by SQRCD, Agricultural Operators, and DWR in the Program Area.

5.1.4 Rejected Alternative 4: Expanded Program Area

The total area within SQRCD's boundary is considerably larger than the Program Area, as defined for the Program. The Scott River watershed makes up only about half of the District. Under this alternative, the geographic scope of the Program would be expanded to include all areas within the boundaries of SQRCD, including portions of the mainstem Klamath River, portions of the Salmon River watershed, and various other Klamath River tributaries.

This alternative would meet most the Program's objectives because the only difference would be to expand the geographic scope of the Program. However, one of the primary objectives of the Program is to facilitate compliance by SQRCD, Agricultural Operators, and DWR with CESA and Fish and Game Code, § 1602. Because agricultural areas within SQRCD district boundary but outside of the Scott River watershed are few, sparse, and limited in extent, this alternative would have little additional benefit compared to Program. Furthermore, because this alternative simply expands the geographic scope of the Program, it would not avoid or substantially lessen any of the significant impacts of the Program. For the foregoing reasons, this alternative is rejected from further consideration.

5.1.5 Rejected Alternative 5: Expanded Range of Covered Activities Alternative[3]

Under this alternative, the scope of the Program would be increased to include not only the activities of SQRCD, Agricultural Operators, and DWR, but also other types of water diversions (e.g., industrial, municipal, domestic) and other non-agricultural activities within the Scott River watershed, such as timber harvest, forest and ranch road building and maintenance, and grading, that have the potential to result in the take of coho salmon. This alternative would also provide for purchase from willing ranchers and farmers of conservation easements over agricultural lands, lands adjacent to watercourses to establish or widen riparian buffer zones, or other lands that if protected by a conservation easement would benefit fish and wildlife species in the Program Area.

This alternative would greatly increase the number of parties eligible for participation in the Program and result in a major increase in the number of activities CDFG would need to analyze under CEQA, and for which CDFG would need to issue SAAs and sub-permits. This would significantly increase CDFG's and SQRCD's workload under the Program to a degree that could make the Program infeasible. Also, because this alternative would expand the number and types of activities under the Program, it would not serve to avoid or substantially lessen the Program's potential significant effects unless those effects were offset by any conservation easements

[3] This alternative was developed partially to address scoping comments which recommended expanding the Program to acquire easements or strategic parcels to allow all equal protection on all areas supporting coho.

acquired under this alternative. The degree to which the conservation easement element under this alternative would further the objectives of the Program, as well as its feasibility, depends on many variables, including the number of willing sellers; purchase, transaction, and maintenance costs; available monies to cover those costs; and the location of the "conservation lands." Finally, conservation easements currently can be purchased from willing sellers outside the Program. For the foregoing reasons, it is rejected from further consideration.

5.2 Alternatives Considered in the EIR

Both of the alternatives evaluated in this Draft EIR are described and analyzed below. The two tables at the end of this Chapter compare the alternatives with the Program. **Table 5-1** compares the impacts associated with each alternative to the Program's impacts; **Table 5-2** compares the ability of each alternative to meet the Program's objectives.

5.2.1 No Program Alternative

Alternative Description

Discussion of the "no program" alternative (No Program Alternative) must examine the existing conditions and reasonably foreseeable future conditions that would exist if the Program were not approved (CEQA *Guidelines*, § 15126.6(e)). Under the No Program Alternative, CDFG would not issue a watershed-wide ITP or enter into a watershed-wide SAA Memorandum of Understanding (MOU) with a Master List of Terms and Conditions (MLTC). Instead, SQRCD, DWR, and each Agricultural Operator would need to comply with CESA and Fish and Game Code, § 1602 on an individual basis. CDFG would prepare individual ITPs and SAAs as it received notifications and ITP applications. Under this approach, CDFG would need to conduct an appropriate level of CEQA review prior to issuing each individual ITP and SAA.

Individual applicants would be responsible for reimbursing CDFG for the cost of preparing the CEQA document for their ITPs and SAAs. The time required to prepare individual CEQA documents for a large number of agricultural diversions in the Scott River watershed could cause construction delays for Agricultural Operators. It is likely that many Agricultural Operators could not afford or would not choose to go through with an individual permitting process, potentially resulting in some Agricultural Operators operating either out of compliance with CESA and Fish and Game Code, § 1602 or terminating their usual operations.

Environmental Impacts

Aesthetics

The Program would not result in any significant aesthetic impacts. Similarly, the No Program Alternative would not have significant aesthetic impacts.

Air Quality

Neither the Program nor the No Program Alternative would have a significant impact on air quality.

Biological Resources: Fisheries and Aquatic Habitat

The No Program Alternative would not provide a programmatic framework to facilitate implementation of selected key coho salmon recovery tasks, as identified in the Shasta-Scott Recovery Team Recommendations for Coho Salmon, nor feature a watershed-wide set of terms, conditions, and mitigation measures for ongoing agricultural operations. In summary the No Program Alternative would likely result in a higher level of unauthorized and unmitigated take of coho salmon, and more severe impacts on other fish species when compared with the Program as proposed. However, compared to existing conditions without the Program, this alternative's impacts on fisheries and aquatic habitat would be the same.

Biological Resources: Botany, Wildlife, and Wetlands

The No Program Alternative would not provide a watershed-wide set of terms, conditions, and mitigation measures protecting not only coho salmon, but also riparian and terrestrial, and wetland biological resources. The result would likely be more instances of disturbance or destruction of sensitive biological resources, compared with the Program, although conditions protecting resources would be included in individual ITPs and SAAs.

Geology, Soils, and Seismicity

Neither the Program nor the No Program Alternative would be expected to have a substantial adverse impact on geology, soils, or seismicity. See the following section for geophysical effects.

Geomorphology, Hydrology and Water Quality

Because the No Program Alternative would not include watershed-wide measures to restore coho salmon habitat and to modify surface water diversions and other agricultural practices, it is likely that this alternative would involve fewer construction activities than the Program. Construction-related impacts to streams in the Scott River watershed would therefore likely be less widespread under this alternative.

Even if individual SAAs and ITPs issued under this alternative included measures to enhance streamflow, it is unlikely that such measures would be as well-coordinated or as widespread as those that would occur under the Program as proposed. Therefore, such measures would be unlikely to be as effective as they would be under the Program, and compared with the Program as proposed, the resulting conditions of streams and water quality would be worse. They would be the same as with existing conditions.

Land Use and Agriculture

It is likely that compliance with CESA and Fish and Game Code, § 1602 under the No Program Alternative would be more costly and time-consuming for Agricultural Operators. Individual Agricultural Operators would be responsible for submitting an ITP application through the standard process and notifying CDFG of diversions and work in and around the bed, banks, and channel of streams. The No Program Alternative also would not have the Program's advantage of relatively available funding to cover costs of Program requirements. Agricultural Operators and

SQRCD would continue to have to seek funding from a variety of competitive funding sources (CDFG, NMFS, Natural Resources Conservation Service, and USFWS).

It is likely, therefore, that the No Program Alternative would have a greater adverse impact on maintaining a viable agricultural enterprise while simultaneously complying with CESA and Fish and Game Code, § 1600 *et seq*. For this reason, and using the same logic as discussed in Impact 3.1-1 in Chapter 3.1, Land Use and Agriculture, it is likely that the No Program Alternative would result in a more severe impact associated with the potential pressure for agricultural land use conversion. This would be a potentially significant impact of this alternative.

Noise

Neither the Program nor the No Program Alternative would be expected to have a substantial noise impact.

Public Utilities, Service Systems, and Energy

Because the No Program Alternative would not provide incidental take authorization for Covered Activities, or facilitate Agricultural Operators' compliance with Fish and Game Code, § 1600 *et seq*., this alternative would be expected to result in fewer construction projects and fewer alterations to the existing system of diverting and conveying irrigation water. Therefore, this alternative would be expected to have similar, but less severe impacts to public utilities, service systems, and energy as compared with the Program.

Hazards and Hazardous Materials

As stated in the previous paragraph, the No Program Alternative would likely result in fewer construction projects, and would therefore be less likely to encounter previously unknown hazardous materials, or to cause wildfire. On the other hand, more haphazard permitting and implementation of projects under this alternative could result in less uniform and less stringent application of protective measures to prevent or mitigate for such occurrences. On balance, this alternative would have about the same level of impacts of this kind as the Program.

Cultural Resources

Cultural resources impacts of the No Program Alternative would be about the same as the Program: ongoing land disturbance associated with agricultural activities and stream habitat restoration projects could cause significant impacts, but these could be reduced to a less than significant with feasible mitigation measures

Transportation and Traffic

Because this alternative would not generate substantial new traffic or affect existing roadways, it would not be expected to have a substantial adverse impact on traffic.

Mineral Resources

Because this alternative would not affect the ability to recover identified mineral deposits, it would not be expected to have significant impacts on mineral resources.

Population and Housing

There are no population and housing impacts of the Program, or of this alternative.

Public Health and Safety

Neither the Program nor this alternative is expected to have an impact on public health and safety.

Recreation

Neither this alternative nor the Program is expected to affect existing recreational uses in the Program Area, or to generate demand for new recreational uses. Therefore, neither the Program as proposed, nor this alternative, would have an impact on recreation.

Ability of the No Program Alternative to Meet Program Objectives

Although the implementation of the No Program Alternative would meet several of the stated objectives of the Program (see Table 5.2), it would not be as effective or efficient at bringing existing agricultural water diverters into compliance with CESA and Fish and Game Code, § 1600 *et seq.* Most importantly, the No Program Alternative would be less effective at accomplishing or implementing mitigation measures identified in the ITP, accomplishing watershed-wide coordination and implementation of selected key coho salmon recovery tasks, and would not be consistent with commitments identified in the Coho Salmon Recovery Strategy (Recovery Strategy).

5.2.2 Instream Flow Alternative

Alternative Description

The Instream Flow Alternative would include the Program as proposed and would also include the development of surface water storage reservoirs to capture winter runoff. The stored water would be used to benefit the cold water fisheries by increasing streamflow as necessary to assist fish migration, increase rearing habitat, maintain cooler water temperatures, and improve the potential for riparian vegetation survival. All of these issues are identified in the Limiting Factors Analysis in Chapter 3.3, Biological Resources: Fisheries and Aquatic Habitat, as major factors limiting coho salmon production in the Scott River watershed. Where practical, water may be piped or pumped from reservoirs directly into existing water conveyance systems in exchange for reductions in the volume of water diverted from the Scott River and tributaries. The stored water would not be used to increase the existing irrigated acreage or allow for additional water to be diverted for agricultural purposes.

The Program already contains several provisions to increase instream flows, including SQRCD's ITP Flow Enhancement Mitigation Obligations (Article XIII.E.2.(a)), Additional SQRCD and Sub-Permittee Avoidance and Minimization Obligation A: Water Management (Article XV), Additional SQRCD and Sub-Permittee Avoidance and Minimization Obligation J: Maintain Connectivity of Tributaries in the Mainstem (Article XV), and MLTC condition 25 (bypass flows at diversions).

The Shasta-Scott Pilot Program of the Recovery Strategy also contains additional recommendations for "water augmentation" actions for the Scott River Watershed, including the following:

- If feasible, construct large (off-stream) surface-water storage reservoirs;
- If feasible, raise the level of existing small lakes or create storage using small off-stream reservoirs rather than one large reservoir; and
- If feasible, reshape dredge tailings to provide additional water storage within the remaining tailings.

The Instream Flow Alternative would be identical to the Program except that it would also include the additional measures from the Coho Recovery Strategy listed above. Specifically, this alternative would involve implementing those Coho Recovery Strategy recommendations regarding water augmentation which are found to be feasible and appropriate. While no single alternative water supply may be sufficient to result in significant gains in instream flows, a combination of the potential sources discussed above may provide for more suitable water flows and temperatures for rearing coho during the summer and fall months. Furthermore, until the studies are conducted to determine the feasibility of the various measures considered for development of new water supplies, the type and extent of physical impacts of this alternative cannot be determined. Therefore, the following analysis assumes that all of the additional measures listed above would be found to be feasible and appropriate, and would be implemented under this alternative in addition to all of the flow enhancement provisions of the Program as proposed.

Environmental Impacts

Aesthetics

Some of the aspects of this alternative, such as development of large reservoirs and raising the level of mountain lakes, would alter the visual character of the area, and may cause a significant aesthetic impact not caused by the Program itself; thus, significant aesthetic impacts may be expected to occur under this alternative.

Air Quality

Some aspects of this alternative, particularly construction of a large surface reservoir and reshaping the dredge tailings, could have air quality impacts related to use of heavy equipment and earth-moving, as well as potential effects on air quality of the reservoir itself (notably the potential for production of methane, a potent greenhouse gas), not experienced by the Program. While such impacts could be at least partially mitigated, there is insufficient information available to determine whether, after mitigation, the impacts would remain significant. This alternative's air quality impacts are, therefore, potentially more severe than those of the Program as proposed, and have the potential to be significant.

Biological Resources: Fisheries and Aquatic Habitat

Several aspects of this alternative, including development of large and small surface reservoirs, and raising the level of mountain lakes, could have an adverse impact on fisheries and aquatic habitat, though the alternative would also be expected to benefit salmonids and other fish species in the Scott River and tributaries by increasing instream flows. The extent of such impacts would be a function of the areas that would be disturbed by these new features. Impacts could be significant and unavoidable. In sum, this alternative could result in beneficial impacts to fisheries and aquatic habitat not associated with the Program as proposed, but could also cause significant impacts not associated with the Program.

Biological Resources: Botany, Wildlife, and Wetlands

This alternative could have an adverse impact on terrestrial and wetland biological resources. Again, most impacts of this nature would be associated with development of large and small surface reservoirs, raising the level of mountain lakes, and construction of conveyance facilities to bring water from reservoirs to existing agricultural ditches (where practical). Some water storage and conveyance features could be constructed to provide habitat features, which could at least partially mitigate adverse effects. Impacts could be significant and unavoidable, and more severe than with the Program.

Geology, Soils, and Seismicity

Several aspects of this alternative, including the development of one or more large reservoirs, small reservoirs, raising the level of mountain lakes, reshaping the dredge tailings, and the construction of conveyance facilities to bring water from reservoirs to existing agricultural ditches (where practical) could cause short-term and long-term erosion problems. Areas where reservoirs would be situated would have to be evaluated for dynamic (seismic) and static stability, risk of landslide, and other geological risks. In all, this alternative poses greater potential for significant impacts of this nature than the Program.

Geomorphology, Hydrology and Water Quality

This alternative would have the potential for restoring the natural hydrologic regime in some tributary streams, and also in the mainstem Scott River. However, it is unclear how high winter and spring flows would be captured for storage. Also unclear is whether such major changes could be effected given existing water rights and adjudication decrees. Because this alternative seeks to replace some existing diversions with other water sources that would have less of an effect on stream flows and water quality, it could be expected to have fewer and less severe impacts of this nature, compared with the Program as proposed. There would, however, be the potential for significant localized impacts not associated with the Program. For example, raising the height of mountain lakes and controlling release of water during the summer could have profound effects on the hydrology and water quality of high mountain lakes and streams.

Land Use and Agriculture

The Instream Flow Alternative could require the alteration of some existing land uses and land use designations in the Scott River watershed, for example, the conversion of agricultural land or forest land to reservoirs and related facilities, and the conversion of mountain lakes to managed reservoirs. This could cause a significant impact not associated with the Program as proposed.

It is unclear what effect this alternative would have on the income of agricultural operations, and by extension on pressures to convert agricultural land to other uses. On the one hand, a large reservoir in the Scott River watershed, a system of smaller reservoirs, or a series of storage ponds in the dredge tailings, could provide a more predictable water supply in most years, and so could increase and stabilize farm income. On the other hand, the new system would be expensive to construct and to operate, perhaps resulting in higher cost to Agricultural Operators for irrigation water, which would increase pressures to convert agricultural land to other uses. In all, this alternative would potentially have more impacts, including potentially significant impacts on existing land uses, including agriculture, than the Program.

Noise

Noise from equipment and activities associated with new reservoir construction and from reshaping the dredge tailings may introduce new noise sources into areas with sensitive receptors, causing a noise impact not associated with the Program.

Public Utilities, Service Systems, and Energy

The Instream Flow Alternative, with its creation of new surface reservoirs would also require, in some areas, construction of new ditches and pipes, or alteration of existing ones, to convey water from the reservoir(s) to any conveyance ditches (where feasible). Overall, there is a potential for this alternative to have significant impacts on Public Utilities, Service Systems, and Energy, but mitigation measures may be available to reduce some or all such impacts. In summary, these impacts are likely to be more extensive and more severe than similar impacts of the Program as proposed, and there is the potential for significant unavoidable impacts.

Hazards and Hazardous Materials

Because the Instream Flow Alternative would potentially disturb more area than the Program, and involve larger, more extensive construction projects, it would have a greater chance of encountering previously unknown hazardous materials or causing wildfire. These impacts would likely be significant, but could be mitigated to a less than significant impact with measures specified for the Program as proposed.

Cultural Resources

Because areas of disturbance under this alternative would be greater, e.g., from constructing one or more surface water impoundments and conveyance facilities, cultural resources impacts of this alternative could potentially be greater than with the Program, and would likely be significant.

Depending on the location of surface water impoundments and conveyance facilities, impacts could be significant and unavoidable.

Transportation and Traffic

Potential transportation and traffic effects associated with the Instream Flow Alternative may include roadway impacts from heavy equipment and materials transport for reservoir construction and the possible need to construct new roads to reservoir sites, including high mountain lakes. Such impacts would likely be significant and unavoidable. If a large surface water impoundment were to have recreational uses, it could cause an increase in traffic over sparsely used Highway 3 and other local roadways in the Scott Valley, which may also cause significant and unavoidable impacts. In sum, transportation and traffic impacts could be significant, and may be expected to be more severe than those associated with the Program as proposed.

Mineral Resources

Neither the Program nor this alternative is expected to have significant impacts on mineral resources.

Public Health and Safety

Neither the Program nor this alternative is expected to have an impact on public health and safety.

Population and Housing

There are no population and housing impacts of the Program, or of this alternative.

Recreation

Development of a large reservoir under this alternative could create new recreational opportunities in the Scott River watershed. On the other hand, development of mountain lakes as reservoirs could impact current recreational use of these lakes, including backpacking, camping, and fishing. In sum, recreational impacts could be significant, and more severe than with the Program as proposed, but could be expected to be mitigated.

Ability of the Alternative to Meet Program Objectives

Under the Instream Flow Alternative, all of the objectives of the Program would be met, and, if feasible, water augmentation measures identified in the Coho Recovery Strategy would be implemented. Where the potential for take of coho salmon still existed, such as ongoing surface water diversions and other agricultural activities and restoration actions undertaken by SQRCD, ITPs and SAAs still would be required. Impacts from this alternative, particularly those associated with reservoir construction, would be greater than for the Program. The feasibility, costs, and funding mechanisms for this alternative, and for its individual elements (including development of new off-stream reservoirs and any conveyance facilities) have not yet been studied, nor have such studies themselves been funded; therefore the feasibility of this alternative is questionable.

5.3 Environmentally Superior Alternative

As part of evaluation and comparison of alternatives, the CEQA *Guidelines* require that if the "no project" alternative is identified as the environmentally superior alternative, the EIR must also identify the environmentally superior alternative among the other alternatives (CEQA *Guidelines,* § 15126.6(e)(2).) The No Program Alternative is not identified in this Draft EIR as the environmentally superior alternative and, as a result, no environmentally superior alternative is identified. However, for the reasons highlighted above, CDFG generally believes the Program is environmentally superior to the alternatives considered here.

TABLE 5-1
IMPACTS AND SIGNIFICANCE LEVELS OF ALTERNATIVES IN COMPARISON WITH THE PROGRAM

Impact and Significance Level with Mitigation Measures Identified in This Report	No Program	Instream Flow
Land Use and Agriculture		
Impact 3.1-1: The Program could result in the conversion of agricultural land within the Scott River Watershed to non-agricultural uses (Less than Significant).	Greater Impact	Greater Impact
Geomorphology, Hydrology and Water Quality		
Impact 3.2-1: Certain construction activities performed under the Program could result in increased erosion and sedimentation and/or pollutant (e.g., fuels and lubricants) loading to surface waterways, which could increase turbidity, suspended solids, settleable solids, or otherwise decrease water quality in surface waterways (Less than Significant with Mitigation).	Lesser Impact	Greater Impact
Impact 3.2-2: Certain instream structures proposed to improve fish habitat as part of the Program would be installed within a flood hazard area and could impede or redirect flood flows (Less than Significant).	Lesser Impact	Same Impact
Impact 3.2-3: Installation and operation of instream structures permitted under the Program could alter channel stability and degrade water quality by increasing turbidity downstream (Less than Significant with Mitigation).	Same Impact	Same Impact
Impact 3.2-4: The Program could result in an increase in the extraction of groundwater, which could contribute to decreased baseflows and increased ambient water temperatures in the Scott River and its tributaries (Less than Significant).	Lesser Impact	Lesser Impact
Biological Resources: Fisheries and Aquatic Habitat		
Impact 3.3-1: Construction, maintenance, and other instream activities associated with various Covered Activities may result in impacts to fisheries resources and their habitat (Less than Significant with Mitigation).	Greater Impact	Same Impact
Impact 3.3-2: Increased extraction of groundwater could contribute to decreased baseflows and increased ambient water temperatures in the Scott River and its tributaries, thereby impacting coldwater fish habitat (Less than Significant with Mitigation).	Lesser Impact	Lesser Impact
Biological Resources: Botany, Wildlife, and Wetlands		
Impact 3.4-1: The Program could result in impacts to special-status plant or animal species (Less than Significant with Mitigation).	Greater Impact	Greater Impact
Impact 3.4-2: Construction of new and maintenance and repair of existing stream access and crossings could result in impacts to special-status plant or animal species (Less than Significant).	Greater Impact	Same Impact
Impact 3.4-3: ITP Covered Activity 10, the grazing of livestock within the bed, bank, or channel of a stream different from current operations (i.e., not part of baseline conditions), could impact sensitive habitat and special-status species (Less than Significant with Mitigation).	Greater Impact	Same Impact
Impact 3.4-4: ITP Covered Activities may result in incidental discharge of fill into wetlands under federal jurisdiction, with temporary, direct and indirect impacts to wetland function (Less than Significant).	Greater Impact	Greater Impact
Impact 3.4-5: Water efficiency measures required by the Program could in some instances adversely affect nesting special-status birds (Less than Significant with Mitigation).	Greater Impact	Same Impact

Comparison of severity of impacts of Alternatives with impacts of the Program, as mitigated in this EIR.

Greater Impact = The alternative would have a greater (or less favorable) impact than under the Program.
Lesser Impact = The alternative would have a lesser (or more favorable) impact than under the Program.
Same Impact = The alternative would have about the same level of impact as the Program.

This table presents a comparison of environmental impacts that were identified under the proposed project with each of the alternatives. Any additional environmental impacts that would potentially occur under each of the alternatives are presented in the text discussion.

TABLE 5-1 (Continued)
IMPACTS AND SIGNIFICANCE LEVELS OF ALTERNATIVES IN COMPARISON WITH THE PROGRAM

Impact and Significance Level with Mitigation Measures Identified in This Report	No Program	Instream Flow
Cultural Resources		
Impact 3.5-1: Impacts to known and unknown cultural resources may result either directly or indirectly during the implementation and operational phases of a Covered Activity under the Program (Less than Significant with Mitigation).	Same Impact	Greater Impact
Impact 3.5-2: Covered Activities could adversely affect known or unknown paleontological resources (Less than Significant with Mitigation).	Same Impact	Greater Impact
Impact 3.5-3: Covered Activities could result in damage to previously unidentified human remains (Less than Significant).	Same Impact	Greater Impact
Hazards and Hazardous Materials		
Impact 3.6-1: Construction activities could result in discovery and release of previously unidentified hazardous materials into the environment (Less than Significant with Mitigation).	Same Impact	Greater Impact
Impact 3.6-2: Program construction activities could ignite dry vegetation and start a wildland fire (Less than Significant with Mitigation).	Same Impact	Greater Impact
Public Utilities, Service Systems and Energy		
Impact 3.7-1: The Program could result in the modification or expansion of existing water supply systems (Less than Significant).	Lesser Impact	Greater Impact
Impact 3.7-2: Construction activities could inadvertently contact underground utility lines and/or facilities during excavation and other ground disturbance, possibly leading to short-term utility service interruptions (Less Than Significant).	Lesser Impact	Greater Impact
Impact 3.7-3: Replacement of gravity-based surface water diversions with diversions or wells utilizing pumps, would increase power consumption and air emissions (Less than Significant).	Lesser Impact	Greater Impact
Impact 3.7-4: Impact 3.7-4: Construction Activities and Water Pumping Associated with Covered Activities and ITP mitigations would generate greenhouse gas emissions that would contribute to global warming (Less than Significant).	Lesser Impact	Greater Impact
Aesthetics Program would have no significant impacts	Same Impact	Greater Impact
Air Quality Program would have no significant impacts	Same Impact	Greater Impact
Geology, Soils and Seismicity Program would have no significant impacts	Same Impact	Greater Impact
Mineral Resources Program would have no significant impacts	Same Impact	Same Impact
Noise Program would have no significant impacts	Same Impact	Greater Impact
Population and Housing Program would have no significant impacts	Same Impact	Same Impact

Comparison of severity of impacts of Alternatives with impacts of the Program, as mitigated in this EIR.

Greater Impact = The alternative would have a greater (or less favorable) impact than under the Program.
Lesser Impact = The alternative would have a lesser (or more favorable) impact than under the Program.
Same Impact = The alternative would have about the same level of impact as the Program.

This table presents a comparison of environmental impacts that were identified under the proposed project with each of the alternatives. Any additional environmental impacts that would potentially occur under each of the alternatives are presented in the text discussion.

TABLE 5-1 (Continued)
IMPACTS AND SIGNIFICANCE LEVELS OF ALTERNATIVES IN COMPARISON WITH THE PROGRAM

Impact and Significance Level with Mitigation Measures Identified in This Report	No Program	Instream Flow
Public Health and Safety	Same Impact	Same Impact
Program would have no significant impacts		
Recreation	Same Impact	Greater Impact
Program would have no significant impacts		
Transportation and Traffic	Same Impact	Greater Impact
Program would have no significant impacts		

Comparison of severity of impacts of Alternatives with impacts of the Program, as mitigated in this EIR.

Greater Impact = The alternative would have a greater (or less favorable) impact than under the Program.
Lesser Impact = The alternative would have a lesser (or more favorable) impact than under the Program.
Same Impact = The alternative would have about the same level of impact as the Program.

This table presents a comparison of environmental impacts that were identified under the proposed project with each of the alternatives. Any additional environmental impacts that would potentially occur under each of the alternatives are presented in the text discussion.

TABLE 5-2
ABILITY OF THE PROGRAM AND ALTERNATIVES TO MEET PROGRAM OBJECTIVES

Ability of Alternatives to Meet Program Objectives	Program	No Program Alternative	Instream Flow Alternative
SQRCD's Objectives			
Support landowner activities (both private and public) in order to enhance the conservation and economic stability of Siskiyou County's natural resources.	Yes	No	Yes
Assist Agricultural Operators in completing projects consistent with the tasks identified in the Coho Recovery Strategy and projects identified in the Scott River Watershed Council Strategic Action Plan (Scott River Watershed Council, 2005).	Yes	No	Yes
Assist Agricultural Operators in meeting the requirements of Fish and Game Code, § 1600 *et seq.* and CESA by working with CDFG to develop a Program that streamlines the process to obtain streambed alteration agreements (SAA) under Fish and Game Code, § 1600 *et seq.* and incidental take authorization under CESA.	Yes	No	Yes
Comply with Fish and Game Code, § 1600 *et seq.* and CESA while performing instream and/or near-stream coho salmon restoration activities.	Yes	No	Yes
Provide incentives for Agricultural Operators in the Scott River watershed to implement coho salmon recovery tasks.	Yes	No	Yes
Increase the viability of coho salmon and other plant, fish, and wildlife resources in the Scott River watershed by improving water quality and riparian habitat, minimizing any adverse effects from agricultural activities, and restoring habitat by providing a clear set of activities and conditions to Agricultural Operators.	Yes	No	Yes
Protect and improve the biological functioning of the Scott River watershed and natural resources while maintaining the economic viability of agriculture.	Yes	No	Yes
Implement the permit conditions identified in the Program for coho salmon and other stream resources in the Scott River watershed.	Yes	No	Yes
CDFG's Objectives			
Fulfill the commitment to develop a permitting framework within the context of the Shasta-Scott Pilot Program in the Coho Recovery Strategy."	Yes	No	**Yes**
Work with SQRCD and Agricultural Operators to develop a watershed-wide permit program that covers agricultural water diversions and other agricultural activities related to those diversions in the Scott River watershed.	Yes	No	**Yes**
Protect and conserve coho salmon when authorizing activities in the Scott River watershed that may affect the species.	Yes	No	**Yes**
Eliminate unauthorized take of coho salmon caused by water diversions in the Scott River watershed and avoid, minimize, and fully mitigate take of coho salmon incidental to diverting water with a valid water right, recovery actions, and other lawful activities.	Yes	No	**Yes**
Implement selected key coho salmon recovery tasks that are essential to improving habitat conditions for coho salmon in the Scott River watershed.	Yes	No	**Yes**

TABLE 5-2 (Continued)
ABILITY OF THE PROGRAM AND ALTERNATIVES TO MEET PROGRAM OBJECTIVES

Ability of Alternatives to Meet Program Objectives	Program	No Program Alternative	Instream Flow Alternative
CDFG's Objectives (cont.)			
Bring existing agricultural water diverters into compliance with Fish and Game Code, § 1600 *et seq*. and CESA.	Yes	No	**Yes**
Agricultural Operators' Objectives			
Protect and conserve coho salmon and other plant, fish, and wildlife resources while maintaining the economic viability of their agricultural operations in the Scott River watershed.	Yes	No	Yes
Comply with Fish and Game Code, § 1600 *et seq.* and CESA in conducting the activities the Program covers subject to those statutes.	Yes	Partly	Yes
Department of Water Resources Objective			
Implement the applicable Decrees pursuant to applicable provisions in the California Water Code.	Yes	Partly	Yes
Ensure watermastering activities are in compliance with CESA.	Yes	Partly	Yes
Verify that watermastered diverters are in compliance with their respective adjudicated water right(s).	Yes	Partly	Yes
Work with CDFG to avoid or minimize the stranding of coho salmon when CDFG determines that a permitted water diversion is causing or will cause stranding.	Yes	Partly	Yes

References

State Water Resources Control Board (SWRCB), *The Water Right Process*, www.waterrights.ca.gov/html/wr_process.htm, accessed online April 2007.